User's Guide

CTS6000 control panel

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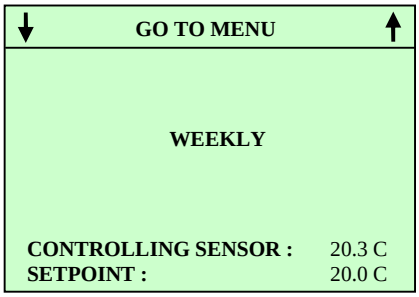
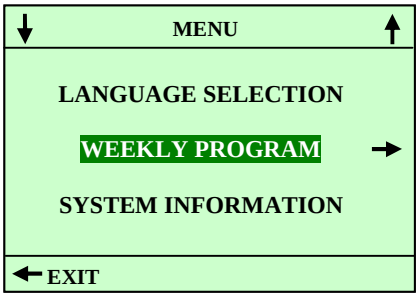
2 Introduction

The CTS6000 control panel allows functions that are necessary for everyday operation to be viewed and altered. It is thus possible to change various temperature settings, reset alarms and start the unit outside the usual operating period. The CTS6000 control panel supplements CTS6000 WebControl, the program in which more advanced settings are made.
A menu overview and descriptions of all alarms can be found at the end of the guide.

3 Control panel menus

The panel consists of a "Power" button, an "Alarm" button, four arrow buttons and a "Set" button. The buttons have the following functions. Pressing any button for the first time activates the backlit display. The "POWER" button is used to start/stop the system in "Weekly program" mode or to activate "Extended operation". The "ALARM" button is used to access the alarm log. "Arrow right" is used to enter/open a menu option. "Arrow left" is used to return. "Arrow up" is used to scroll upwards or to increase a parameter setting. "Arrow down" is used to scroll downwards or to reduce a parameter setting. The "SET" button is used to save a new setting.
The startup display shows current system status, see Figure 1. The main menu is opened from the startup display using the arrow up or arrow down button, see Figure 2.





The startup display reappears if no button is pressed for 15 seconds.

3.1 Alarm log/event log

The alarm log is accessed by pressing the "ALARM" button, i.e. the one marked with a bell on the bottom right of the panel. The most recent alarms/events will then be displayed, see Figure 3. It is possible to scroll through previous alarms/events using the arrow up and down buttons.

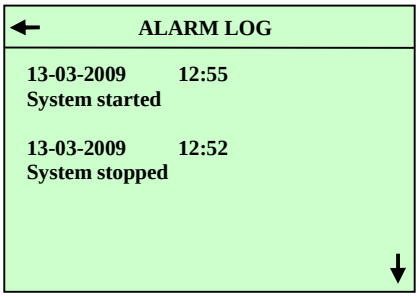


Figure 3 Alarm log with new alarm

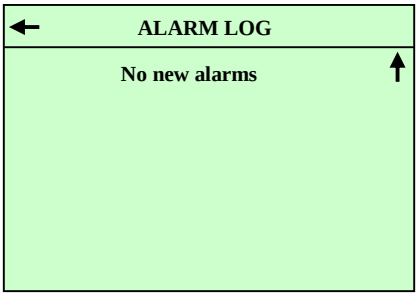


Figure 4 Alarm log with no alarms

In the event of a new alarm, the red lamp above the alarm button will flash. Press the button to view the alarm and then press "SET" to reset the alarm, see Figure 4. If the system has been stopped as a result of an alarm, it will be restarted once the alarm has been reset in the alarm log if the error that caused the alarm has been remedied.

3.2 Power button

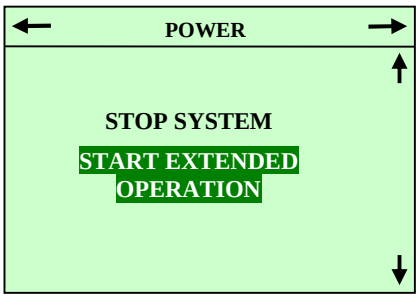


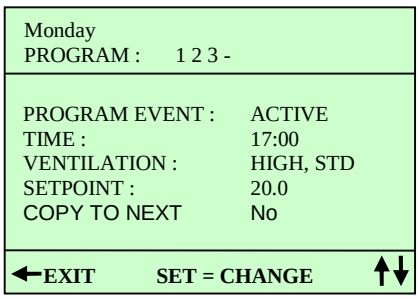
Figure 5 Power, system in operation

Pressing the "POWER" button opens the menu shown in Figure 5. "Stop system" is used to stop the system or to start it in weekly program mode. If "Stop system" is selected the unit will remain stopped and NOT follow the weekly program.
If "Start extended operation" is selected, the unit will continue to run for an additional 2 hours (the duration can be changed via CTS6000 WebControl).

3.3 Weekly program

The control panel can be used to change the required temperature and start/stop times in the weekly program (setpoints for fan speed or duct pressure can, however, only be changed via CTS6000 WebControl).
The weekly program is opened from the startup display by pressing arrow up or arrow down. The menu shown in Figure 2 will then appear. Use arrow up or arrow down to select "WEEKLY PROGRAM"
Then press arrow right to open the weekly program, see Figure 6.

Use arrow up or arrow down to scroll through the various menu options for the day selected. As standard, Monday is initially displayed when the weekly program is opened. Six program events can be defined for each day of the week. Figures at the top of the display indicate the number of events defined for the day in question. For each program event in which the unit is in operation (Program Event: Active), it is possible to change the required settings, see Figure 6. To do so, select the setting to be changed, press SET to change the setting, press arrow up or arrow down to select the required value and then press SET to save the new setting.
To select another day of the week, highlight Monday, press SET, select the required day of the week using the arrow up or arrow down buttons and then press SET again once the required day has been highlighted.



3.4 Language selection

"LANGUAGE SELECTION" is located in the menu shown in Figure 2. The language used in the displays can be changed under "LANGUAGE SELECTION".

3.5 Date and time

"DATE AND TIME" is located in the menu shown in Figure 2. The date and time used by the system can be changed under "DATE AND TIME".

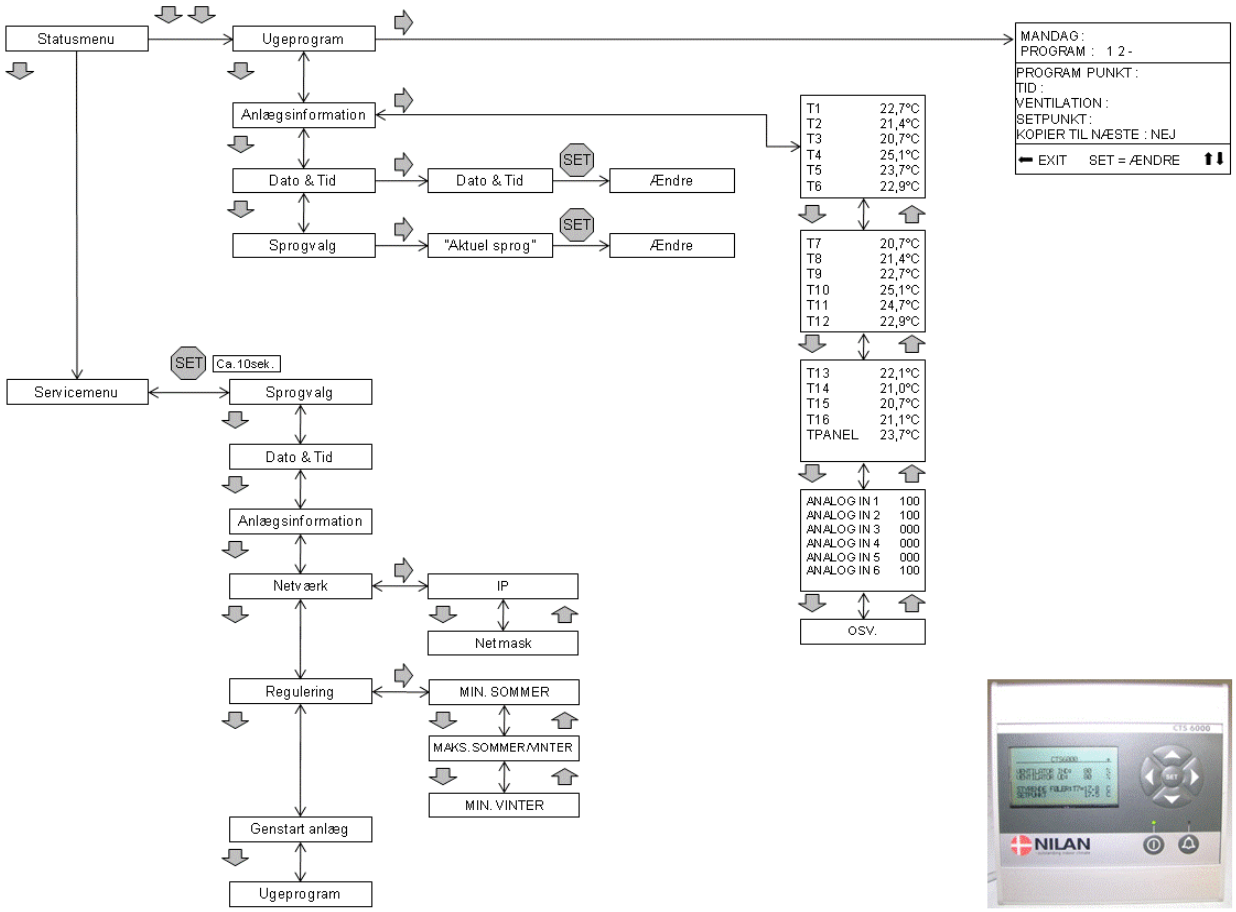
3.6 System information

"SYSTEM INFORMATION" is located in the menu shown in Figure 2. System status data can be viewed under "SYSTEM INFORMATION".

3.7 Service menu

It is possible to change advanced functions, network settings and regulation parameters and to restart the system in the "SERVICE MENU". To access the service menu, activate the control panel by pressing arrow down. Then press and hold "SET" for approx. 10 seconds. The service menu will then appear.

4 Menu overview



5 Description of alarms

Alarm name	Description	Remedy
Door open	Door to fans is open. Ventilation unit stops in order to prevent personal injury.	Close door and reset alarm.
Fire alarm	The unit is equipped with two fire thermostats: one in the inlet duct, the other in the exhaust duct. If temperature becomes excessive, the thermostats are activated.	Reset fire thermostats in unit and reset alarm.
Smoke alarm	Smoke detectors can be fitted in the unit. One of these smoke detectors has sensed smoke.	Check smoke detector and reset alarm.
Thermal relay	Motor protector has cut out; Klixon in compressor motor or fan motor has cut out; or error has occurred in frequency converter.	Reset motor protector or remedy error in frequency converter and reset alarm.
High pressure alarm	A high pressure alarm can be activated if there is insufficient air flow through the unit. This may be caused by blocked filters, loose V-belts or dampers which have not opened.	Reset alarm. If the alarm repeatedly occurs for no apparent reason, call service.
Low pressure alarm 1	Low pressure alarm 1 can be activated if there is insufficient air flow through the unit. This may be caused by blocked filters, loose V-belts or dampers which have not opened.	The controls stop the compressor until the pressure switch is reset. Max. 5 times an hour, however.
Low pressure alarm 2	Low pressure alarm 2 is activated if low pressure alarm 1 has been activated 5 times within the last hour.	Reset alarm. If the alarm repeatedly occurs for no apparent reason, call service.
Condenser high pressure	Upper limit for cooling circuit pressure set under "Pressure limits" has been exceeded. The alarm can be activated by insufficient air flow through the unit. This may be caused by blocked filters, loose V-belts or dampers which have not opened.	Reset alarm. If the alarm repeatedly occurs for no apparent reason, call service.
Evaporator low pressure 1	Lower limit for cooling circuit pressure, which is set under "Pressure limits", has been exceeded. The alarm can be activated by insufficient air flow through the unit. This may be caused by blocked filters, loose V-belts or dampers which have not opened.	The controls stop the compressor until pressure is regained. Max. 5 times an hour, however.
Evaporator low pressure 2	Evaporator low pressure 2 is activated if Evaporator low pressure 1 has been activated 5 times within the last hour.	Reset alarm. If the alarm repeatedly occurs for no apparent reason, call service.
Condenser overheated	Condenser temperature setting under "Pressure limits" too high. The alarm can be activated by insufficient air flow through the unit. This may be caused by blocked filters, loose V-belts or dampers which have not opened.	Reset alarm. If the alarm repeatedly occurs for no apparent reason, call service.
Evaporator too cold	Evaporator temperature setting under "Pressure limits" too low. The alarm can be activated by insufficient air flow through the unit. This may be caused by blocked filters,	Reset alarm. If the alarm repeatedly occurs for no apparent reason, call service.

	loose V-belts or dampers which have not opened.	
Timeout for prevention function	The prevention function for high or low pressure alarms has run for more than 20 minutes but pressure is still outside the limits. This may be caused by blocked filters, loose V-belts or dampers which have not opened.	Reset alarm. If the alarm repeatedly occurs for no apparent reason, call service.
Frost alarm	Temperature of hydronic after-heating coil too low.	The controls open the water valve and start the pump to keep the heating coil free of ice.
Fatal frost alarm	Temperature of hydronic after-heating coil remains too low despite prevention attempts.	The unit is stopped. Check the after-heating coil.
Flow alarm	Insufficient air flow across electric after-heating coil for coil to cut in. This may be caused by blocked filters, loose V-belts or dampers which have not opened.	Reset alarm. If the alarm repeatedly occurs for no apparent reason, call service.
Compressor starts	A compressor has started 59 times within one hour.	Set compressor minimum off time to at least 3 minutes and reset the alarm.
VLT compressor starts	A VLT compressor has started 11 times within one hour.	Set compressor minimum off time to at least 6 minutes and reset the alarm.
Pressure pipe temperature T10/11/12/13	Pressure pipe temperature on compressor 1/2/3/4 has exceeded 125°.	The controls stop the compressor and do not allow it to restart before the temperature has dropped below 50°C. If the alarm repeatedly occurs, call service.
VLT x has not responded to the 5 latest requests	A communication error has occurred between the control unit and the VLTs.	The unit stops. Reset alarm. If the alarm repeatedly occurs, call service.
Netavent unit x has not responded to the last 5 requests	A communication error has occurred between the control unit and the VLTs.	Reset alarm. If the alarm repeatedly occurs, call service.
T3 is set as the controlling sensor	If a Netavent unit has been selected as the controlling sensor, but communication with the unit concerned cannot be established, the control unit switches instead to T3 (exhaust temperature).	Reset alarm.